

DR. INDRAJIT KALITA

POSTDOCTORAL RESEARCHER, Computing and Data Sciences (CDS), Boston University
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PROFESSIONAL APPOINTMENTS

Postdoctoral Researcher , Computing and Data Sciences (CDS), Boston University, Boston, USA	2023 – Present
Research Associate , CYENS-Centre of Excellence (SuPerWorld MRG), Nicosia, Cyprus	2022 – 2023
Assistant Project Engineer , Indian Institute of Technology Guwahati, India	2014 – 2015

TEACHING EXPERIENCE

Teaching Assistant , Indian Institute of Information Technology Guwahati (IIITG)	2017 – 2022
<i>Courses:</i> C Programming Lab, Data Structure Lab, Design and Analysis of Algorithm Lab, Database and Management System Lab, Machine Learning Lab, Deep Learning Lab	

EDUCATION

PhD in Computer Science & Engineering, Indian Institute of Information Technology Guwahati	2017 – 2022
<i>Dissertation Title:</i> “Deep learning based adaptive land cover monitoring by analyzing remotely sensed images”, awarded September 2022	
Master of Technology in Information Technology, Tezpur University	2015 – 2017
<i>Dissertation Title:</i> “Image Classification using Deep Convolutional Neural Network”, CPI 9.06/10 with Distinction	
Bachelor of Engineering in Computer Science & Engineering, Gauhati University	2009 – 2013
Percentage: 71.72%, First class	

RESEARCH ROLE AND MAJOR PROJECTS

Project 1: Rainfall Prediction in West Africa Using Deep Learning	2023 – Present
Project 2: Land Use and Land Cover (LULC) Mapping and Environmental Monitoring in Cyprus	2022 – 2023
Project 3: Cyprus TreeMapper - Tree Detection and Counting	
Project 4: Development of GAEA - Advanced Geo-Analytical Tool in Cyprus	
Project 5: Innovative Integrated Tools and Technologies to Protect and Treat Drinking Water from Disinfection Byproducts (DBPs) (Project H2OforAll)	

RESEARCH EXPERTISE

Deep Learning: Optimization, CNNs, LSTMs, GNNs, Autoencoders for various applications
Computer Vision: Image classification/segmentation, change detection, super-resolution
Programming: C, C++, Python, PyTorch, Tensorflow (keras), MATLAB

SELECTED PUBLICATIONS (2 OF 18)

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1. **Kalita, I., & Roy, M.** (2022). Class-Wise Subspace Alignment-Based Unsupervised Adaptive Land Cover Classification in Scene-Level Using Deep Siamese Network. *IEEE Transactions on Neural Networks and Learning Systems*, 34(7), 3323-3334.
 2. **Kalita, I., & Roy, M.** (2020). Deep neural network-based heterogeneous domain adaptation using ensemble decision making in land cover classification. *IEEE Transactions on Artificial Intelligence*, 1(2), 167-180.

ACADEMIC AWARDS

Year-Round Internship, CYENS-Centre of Excellence, Cyprus	2020
Top 200 in SAMADHAN Online Challenge, Ministry of Human Resource Development, India	2021
Top 10 in Machine Learning Feature Extraction Competition, ICETCI & NRSC-ISRO	2021
First Runner-up, AAROHAN-2013 State-Level Project Competition, ABVP, India	2013

PROFESSIONAL AFFILIATIONS & VOLUNTEER ACTIVITIES

Professional Memberships: IEEE Member (ID: 93680859)
Journal Reviewer: IEEE-TAI, T&F-IJDE, Elsevier-ASR, Springer-Discover Computing
Administrative Activities: 2021-2022: General Secretary of the Welfare Board, IIIT Guwahati